

Scottish independence

A succession event for UK sovereign CDS?*

- **Unlikely, but not insignificant** – Based on opinion polls, [Citi regards](#) a 'yes' vote for Scottish independence as highly unlikely. Yet the uncertainty created by such an outcome would have a discernible impact on related risk premia in our view.
- **Worth hedging?** Beyond the bid-offer, we see little downside in buying some sovereign protection as a (partial) hedge for related credit exposure – with UK 5yr CDS now quoted inside Germany, we don't believe there is much tightening potential in the central scenario.
- **A succession event** – One technical reason to expect volatility in a 'yes' scenario is that we believe Scottish independence would constitute a succession event for existing UK sovereign CDS contracts, based on our (non-legal) reading of ISDA 2003 definitions. A succession event is very different from a credit event and does not result in a CDS auction. Yet we believe vague language in the current 2003 definitions creates uncertainty about how credit derivative contracts would be split between the remainder of the UK (rUK) and Scotland, which would likely carry a higher risk premium.
- **Clarification with the new 2014 ISDA definitions** – With the new 2014 Definitions, the framework regarding sovereign succession events will be aligned to the existing method for corporates. As an independent Scotland would in all probability assume less than 25% of existing debt, we believe the rUK would become the sole reference entity.

Hans Lorenzen
+44-20-7986-3568
hans.lorenzen@citi.com

***CORRECTION:** In our original note, we had the incorrect Moody's rating for the UK on page 2 & 4.

See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

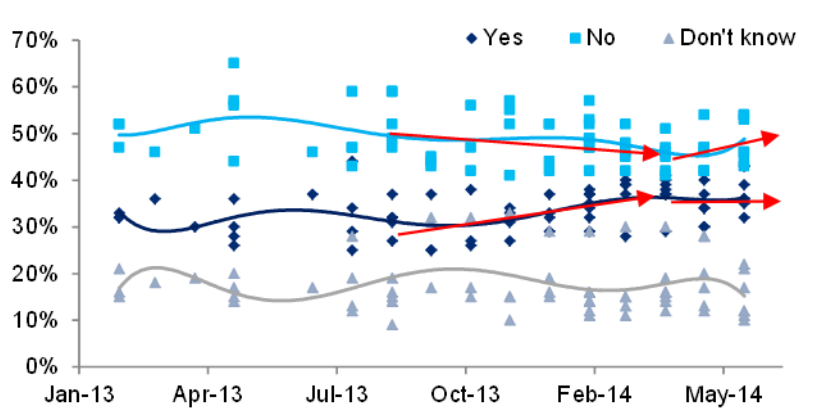
Citi Research is a division of Citigroup Global Markets Inc. (the "Firm"), which does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the Firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision. Certain products (not inconsistent with the author's published research) are available only on Citi's portals.

A succession event for UK sovereign CDS?

Introduction

We expect the Scottish referendum on independence to end with a 'no' vote as our economists and rates strategists discussed in [their assessment](#) on the economic and political impact of independence earlier this year. The latest opinion polls still show a clear majority against independence and more importantly, the converging trend that was apparent earlier in the year appears to have abated (Figure 1).

Figure 1. Opinion poll: "Should Scotland be an independent country?"



Source: Citi Research, What Scotland Thinks

However, a non-consensus outcome would raise a number of uncertainties, both political and economic, not least on the distribution of the debt and the monetary regime, with implications, in particular, for banks with cross-border activities.

In this regards, we believe it is important to consider the technicalities surrounding UK sovereign CDS contracts, which might be split into separate contracts on the remainder of the UK, rUK, and Scotland.

Put differently, although the rUK would probably be considered the continuator for the UK for most international and legal purposes, we will argue that Scottish independence would constitute a succession event under the language on sovereign CDS in the ISDA definitions.

Under ISDA 2014, sovereign succession events will follow the same framework as for corporate CDS, implying that the rUK would almost certainly become the sole successor on CDS contracts written after the September roll.

However, vague language on CDS contracts written under ISDA 2003 definitions leaves uncertainty about how such a succession event would be handled. There might be a split into rUK CDS and Scotland CDS in unknown proportions. Although, this is very different from a credit event¹, this is not inconsequential.

While an independent Scotland would most probably have an investment-grade credit profile, it would very likely be lower than the current AAA/Aa1-ratings of the UK. Our rates strategists see fair value on future 10-year Scottish bonds at 125bp above gilts.

So the prospect of a succession event coupled with the additional uncertainty create scope for knee-jerk widening in UK sovereign CDS spreads should Scotland vote

¹ There would be no CDS auction as a result of a succession event

for independence. Conversely, with 5yr UK CDS already quoted inside Germany, we don't see much scope for a rally should the outcome of the vote turn out as expected.

That asymmetry creates a case for seeking to hedge UK exposures across credit that might be sensitive to an unexpected outcome with UK CDS protection, in our view.

What do the ISDA 2003 definitions say on sovereign succession events?

In ISDA 2003 a "Succession Event" with respect to a Reference Entity that is a sovereign means:

"an event such as an annexation, unification, secession, partition, dissolution, consolidation, reconstitution or other event that results in any direct or indirect successor(s) to such Reference Entity".

In our (non-legal) opinion, Scottish independence would be captured by this language. The language under ISDA 2003 definitions concerning what constitutes a Successor is more open when it comes to sovereigns than with corporate reference entities:

"With respect to a Sovereign Reference Entity, "Successor" means each entity which becomes a direct or indirect successor to such Reference Entity by way of Succession Event, irrespective of whether any such successor assumes any of the obligations of such Reference Entity."

At the moment, it has not been agreed how the national debt of the UK would be split between the rUK and Scotland. The Scottish Government states in their guide setting out the benefits of independence, "Scotland's Future", that Scotland intends to take on a share of the UK's national debt, as well as a corresponding share of assets. But as mentioned below, it will likely depend on other agreements reached in the transitional period, crucially on currency.

The UK Treasury has stated that the contractual terms of existing gilts will remain unchanged and that there will be no transfer of gilts to an independent Scotland.

Scotland might take on its share as an IOU to the rUK, but it might also guarantee payments on a certain portion of the gilts. However, in either scenario it seems likely to us that Scotland could be deemed to be at least an 'indirect successor'.

What happens to contracts written under ISDA 2003 in a sovereign succession event?

That's a good question. The ISDA 2003 definitions do not elaborate much further than what we have reproduced above. Unlike with corporate succession events there is no predefined mechanism determining how UK CDS contracts would be split.

In our view that leaves some uncertainty for investors in UK sovereign CDS. The ISDA Determinations Committee might decide to apply the same methodology as for corporate succession events (as will be the case in new 2014 contracts), or take a de minimis approach, with the likely implication that rUK becomes the sole

successor. But it is also possible that existing UK CDS contracts would be split into new rUK and Scotland contracts.

Both S&P and Moody's have indicated that an independent Scotland would most likely receive an investment-grade rating. However, given the lack of track record and likely credit metrics, such as the size of the financial sector relative to the economy, we suspect that an independent Scotland would not get to share the UK's current AAA/Aa1 ratings. Moody's has indicated that Scotland's rating would most likely be around 'A'. Our rates strategists believe the credit profile would be in the high 'single-A' region. They judge that the long-term 'fair value' spread differential over 10-year UK gilts would be around 125bp, in a scenario where Scotland unilaterally uses sterling and pays its share of liabilities.

As such, we would expect there to be a spread differential between CDS contracts on rUK and on Scotland. Indeed, it is quite possible that the spread differential would initially be somewhat wider than what ratings and fundamentals imply, to reflect uncertainty about Scottish institutions and policies – warranted or not.

That means investors should not be indifferent about how the ISDA Determinations Committee would decide to apportion current contracts into new rUK and Scotland contracts – and that investors wanting to take a view on secession may choose to use CDS as a result.

When would a succession event occur?

The succession date would not be the day after the vote, but the date where Scotland formally becomes an independent nation. According to 'Scotland's Future', the Scottish government plans to negotiate so that Scotland can assume independence on 24 March 2016, if the outcome of the referendum is a 'yes'. Obviously with more than one party to the negotiations it is quite possible that the actual date ends up shifting – more likely to a later than to an earlier time.

Is a succession event different to a credit event?

Yes, absolutely! In January, the UK government sought to allay any worst case scenarios for UK government debt in the event of Scottish Independence by affirming that it would honour the debt it has issued under all circumstances. Accordingly, we regard the likelihood that a 'yes' vote would trigger one of the conventional sovereign CDS credit events (failure to pay, restructuring, repudiation or a moratorium) as exceedingly low.

A succession event does not trigger a CDS auction, where holders of CDS protection can post the cheapest deliverable asset and thus profit from the differential between the value of that asset and par. A succession event merely results in a technical split of existing CDS contracts on a reference entity, like the UK, into new reference entities (for these purposes, the rUK and a new Scotland).

How large is the notional amount of CDS contracts outstanding?

According to the latest DTCC data, the gross notional outstanding of CDS contracts on the United Kingdom of Great Britain and Northern Ireland amounts to \$57.1bn, while the net notional is \$5.3bn. That makes it the 14th largest reference entity on the DTCC list.

What changes with the ISDA 2014 definitions?

The language on what constitutes a sovereign succession event is little changed in the new ISDA definitions. However, the framework in a sovereign succession event has been unified with the existing framework for corporate succession events. This essentially implies that:

- If a single entity assumes the majority (i.e. >75%) of the CDS reference entity's (RE) debt or only one entity has more than 25% of the CDS RE's debt then the RE of the CDS contract references this new entity.
- In the case where no single entity has more than 75%, but two or more have more than 25%, then the CDS splits equally among all the entities reaching the 25% threshold.
- If an entity has less than 25% and the CDS RE survives then there is no change to the original CDS contract.
- If an entity has less than 25% and the CDS RE ceases to exist then the sole successor is the entity with the highest percentage of relevant obligations.

The Scottish Parliament has estimated that Scotland's share of the UK national debt amounts to £130bn. UK government or government-guaranteed bonds alone amount to £1.3tr, which means that Scotland's share would be 10% or less. As such, in all probability either the rUK would end up the sole successor or the existing reference entity would be maintained.

What would happen in a non-cooperative scenario?

While there is a significant amount of political posturing, some additional uncertainty is created by the Scottish government's assertion that it is under no obligation to take on part of the UK debt if the British government maintains its opposition to a monetary union with an independent Scotland.

This is definitely not our expectation, but should that happen then holders of ISDA 2014 contracts would end up holding CDS on a rUK with somewhat higher leverage and lower creditworthiness than at present. Conversely, should ISDA 2003 contracts be split between rUK CDS and Scottish CDS, then there would be no deliverable initially². Historically, the Scottish government has not been granted the power to issue its own debt independently³.

In that sense, the non-cooperative scenario is marginally more negative for new CDS contracts than for existing CDS contracts, although that might not last long if a new Scottish government subsequently decided to issue hard-currency debt.

What would happen to corporate reference entities?

We believe the likelihood of any kind of trigger in corporate CDS contracts resulting from Scottish independence is low. As the deliverable debt will generally tend to be written under English or foreign law, we do not believe it could be redenominated (which would constitute a restructuring event) even in a non-cooperative scenario where Scotland ended up with its own currency.

² Remember that under ISDA 2003 definitions only specified or current G7 currencies are deliverable, which means that any future debt issued in Scottish Pounds would not be deliverable either.

³ From 2015, the Scottish Parliament will be allowed to borrow a limited amount to fund major projects.

Equally, there would be no obvious reason to expect a succession event either.

Obviously, CDS spreads on relevant corporates might be impacted by a vote for Scottish independence for other reasons, such as the uncertainty about the transitional arrangements or the scope for deposit in-/outflows.

Is there a case for hedging?

Succession is largely a technical issue (unlike with a credit event). But coupled with the general uncertainty we believe it would be enough to push UK CDS spreads meaningfully wider should Scotland vote for independence.

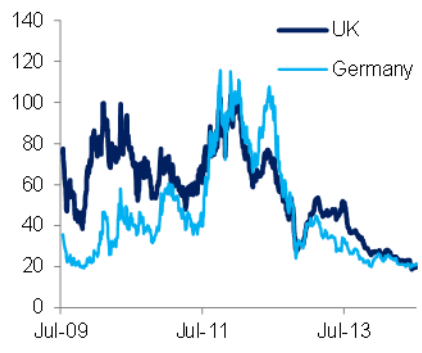
At the moment, we see no signs of an uncertainty premium in UK CDS spreads, which unusually are trading inside German CDS spreads (Figure 2). At 19bp, UK 5yr CDS is the tightest we have seen since 2008. As such, we struggle to see how spreads would tighten meaningfully should the referendum turn out as expected.

Yet if we for argument's sake assumed that UK contracts were split into 90% rUK and 10% Scotland with, say, a 75bp risk premium in 5yr space to UK CDS, then that would be worth 7.5bp. But until the split had been confirmed the market might move more than that. Add in the generic uncertainty about the distribution of the debt, the monetary union, ratings implications and so on, and then it seems very conceivable that UK CDS would at least temporarily widen well beyond that in the 'yes' scenario.

Obviously, naked shorting of the UK sovereign CDS is not permitted under the EU rules that came into force last year. But UK sovereign CDS protection may still be used for hedging other exposures.

Accordingly, we believe that buying protection on existing UK CDS contracts is a sensible way to hedge portfolio exposure investors might have to the market reaction should the Scottish referendum go against the consensus. As very little risk is currently priced in, the risk/reward of buying protection looks attractive in our view.

Figure 2. UK vs. Germany, 5yr CDS, bp



Source: Citi Research, MarkIt.

Appendix A-1

Analyst Certification

The research analyst(s) primarily responsible for the preparation and content of this research report are named in bold text in the author block at the front of the product except for those sections where an analyst's name appears in bold alongside content which is attributable to that analyst. Each of these analyst(s) certify, with respect to the section(s) of the report for which they are responsible, that the views expressed therein accurately reflect their personal views about each issuer and security referenced and were prepared in an independent manner, including with respect to Citigroup Global Markets Inc and its affiliates. No part of the research analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendation(s) or view(s) expressed by that research analyst in this report.

IMPORTANT DISCLOSURES

Within the past 12 months, Citigroup Global Markets Inc. or its affiliates has acted as manager or co-manager of an offering of securities of United Kingdom.

Citigroup Global Markets Inc. or its affiliates has received compensation for investment banking services provided within the past 12 months from United Kingdom.

Citigroup Global Markets Inc. or its affiliates expects to receive or intends to seek, within the next three months, compensation for investment banking services from United Kingdom.

Citigroup Global Markets Inc. or an affiliate received compensation for products and services other than investment banking services from United Kingdom in the past 12 months.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as investment banking client(s): United Kingdom.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, securities-related: United Kingdom.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, non-securities-related: United Kingdom.

Analysts' compensation is determined based upon activities and services intended to benefit the investor clients of Citigroup Global Markets Inc. and its affiliates ("the Firm"). Like all Firm employees, analysts receive compensation that is impacted by overall firm profitability which includes investment banking revenues.

For important disclosures (including copies of historical disclosures) regarding the companies that are the subject of this Citi Research product ("the Product"), please contact Citi Research, 388 Greenwich Street, 28th Floor, New York, NY, 10013, Attention: Legal/Compliance [E6WYB6412478]. In addition, the same important disclosures, with the exception of the Valuation and Risk assessments and historical disclosures, are contained on the Firm's disclosure website at https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures. Valuation and Risk assessments can be found in the text of the most recent research note/report regarding the subject company. Historical disclosures (for up to the past three years) will be provided upon request.

NON-US RESEARCH ANALYST DISCLOSURES

Non-US research analysts who have prepared this report (i.e., all research analysts listed below other than those identified as employed by Citigroup Global Markets Inc.) are not registered/qualified as research analysts with FINRA. Such research analysts may not be associated persons of the member organization and therefore may not be subject to the NYSE Rule 472 and NASD Rule 2711 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account. The legal entities employing the authors of this report are listed below:

Citigroup Global Markets Ltd

Hans Lorenzen

OTHER DISCLOSURES

Citigroup Global Markets Inc. and/or its affiliates has a significant financial interest in relation to United Kingdom. (For an explanation of the determination of significant financial interest, please refer to the policy for managing conflicts of interest which can be found at www.citiVelocity.com.)

For securities recommended in the Product in which the Firm is not a market maker, the Firm is a liquidity provider in the issuers' financial instruments and may act as principal in connection with such transactions. The Firm is a regular issuer of traded financial instruments linked to securities that may have been recommended in the Product. The Firm regularly trades in the securities of the issuer(s) discussed in the Product. The Firm may engage in securities transactions in a manner inconsistent with the Product and, with respect to securities covered by the Product, will buy or sell from customers on a principal basis.

Securities recommended, offered, or sold by the Firm: (i) are not insured by the Federal Deposit Insurance Corporation; (ii) are not deposits or other obligations of any insured depository institution (including Citibank); and (iii) are subject to investment risks, including the possible loss of the principal amount invested. Although information has been obtained from and is based upon sources that the Firm believes to be reliable, we do not guarantee its accuracy and it may be incomplete and condensed. Note, however, that the Firm has taken all reasonable steps to determine the accuracy and completeness of the disclosures made in the Important Disclosures section of the Product. The Firm's research department has received assistance from the subject company(ies) referred to in this Product including, but not limited to, discussions with management of the subject company(ies). Firm policy prohibits research analysts from sending draft research to subject companies. However, it should be presumed that the author of the Product has had discussions with the subject company to ensure factual accuracy prior to publication. All opinions, projections and estimates constitute the judgment of the author as of the date of the Product and these, plus any other information contained in the Product, are subject to change without notice. Prices and availability of financial instruments also are subject to change without notice. Notwithstanding other departments within the Firm advising the companies discussed in this Product, information obtained in such role is not used in the preparation of the Product. Although Citi Research does not set a predetermined frequency for publication, if the Product is a fundamental research report, it is the intention of Citi Research to provide research coverage of

the/those issuer(s) mentioned therein, including in response to news affecting this issuer, subject to applicable quiet periods and capacity constraints. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security. Any decision to purchase securities mentioned in the Product must take into account existing public information on such security or any registered prospectus.

Investing in non-U.S. securities, including ADRs, may entail certain risks. The securities of non-U.S. issuers may not be registered with, nor be subject to the reporting requirements of the U.S. Securities and Exchange Commission. There may be limited information available on foreign securities. Foreign companies are generally not subject to uniform audit and reporting standards, practices and requirements comparable to those in the U.S. Securities of some foreign companies may be less liquid and their prices more volatile than securities of comparable U.S. companies. In addition, exchange rate movements may have an adverse effect on the value of an investment in a foreign stock and its corresponding dividend payment for U.S. investors. Net dividends to ADR investors are estimated, using withholding tax rates conventions, deemed accurate, but investors are urged to consult their tax advisor for exact dividend computations. Investors who have received the Product from the Firm may be prohibited in certain states or other jurisdictions from purchasing securities mentioned in the Product from the Firm. Please ask your Financial Consultant for additional details. Citigroup Global Markets Inc. takes responsibility for the Product in the United States. Any orders by US investors resulting from the information contained in the Product may be placed only through Citigroup Global Markets Inc.

Important Disclosures for Bell Potter Customers: Bell Potter is making this Product available to its clients pursuant to an agreement with Citigroup Global Markets Australia Pty Limited. Neither Citigroup Global Markets Australia Pty Limited nor any of its affiliates has made any determination as to the suitability of the information provided herein and clients should consult with their Bell Potter financial advisor before making any investment decision.

The Citigroup legal entity that takes responsibility for the production of the Product is the legal entity which the first named author is employed by. The Product is made available in **Australia** through Citigroup Global Markets Australia Pty Limited. (ABN 64 003 114 832 and AFSL No. 240992), participant of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. The Product is made available in Australia to Private Banking wholesale clients through Citigroup Pty Limited (ABN 88 004 325 080 and AFSL 238098). Citigroup Pty Limited provides all financial product advice to Australian Private Banking wholesale clients through bankers and relationship managers. If there is any doubt about the suitability of investments held in Citigroup Private Bank accounts, investors should contact the Citigroup Private Bank in Australia. Citigroup companies may compensate affiliates and their representatives for providing products and services to clients. The Product is made available in **Brazil** by Citigroup Global Markets Brasil - CCTVM SA, which is regulated by CVM - Comissão de Valores Mobiliários, BACEN - Brazilian Central Bank, APIMEC - Associação dos Analistas e Profissionais de Investimento do Mercado de Capitais and ANBID - Associação Nacional dos Bancos de Investimento. Av. Paulista, 1111 - 11º andar - CEP. 01311920 - São Paulo - SP. If the Product is being made available in certain provinces of **Canada** by Citigroup Global Markets (Canada) Inc. ("CGM Canada"), CGM Canada has approved the Product. Citigroup Place, 123 Front Street West, Suite 1100, Toronto, Ontario M5J 2M3. This product is available in **Chile** through Banchile Corredores de Bolsa S.A., an indirect subsidiary of Citigroup Inc., which is regulated by the Superintendencia de Valores y Seguros. Agustinas 975, piso 2, Santiago, Chile. The Product is distributed in **Germany** by Citigroup Global Markets Deutschland AG ("CGMD"), which is regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin). CGMD, Reuterweg 16, 60323 Frankfurt am Main. Research which relates to "securities" (as defined in the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong)) is issued in **Hong Kong** by, or on behalf of, Citigroup Global Markets Asia Limited which takes full responsibility for its content. Citigroup Global Markets Asia Ltd. is regulated by Hong Kong Securities and Futures Commission. If the Research is made available through Citibank, N.A., Hong Kong Branch, for its clients in Citi Private Bank, it is made available by Citibank N.A., Citibank Tower, Citibank Plaza, 3 Garden Road, Hong Kong. Citibank N.A. is regulated by the Hong Kong Monetary Authority. Please contact your Private Banker in Citibank N.A., Hong Kong, Branch if you have any queries on or any matters arising from or in connection with this document. The Product is made available in **India** by Citigroup Global Markets India Private Limited, which is regulated by Securities and Exchange Board of India. 1202, 12th Floor, FIFC, G Block, Bandra Kurla Complex, Bandra East, Mumbai - 400051 Corporate Identity Number: U99999MH2000PTC126657 Tel:+9102261759999 Fax:+9102261759961. The Product is made available in **Indonesia** through PT Citigroup Securities Indonesia. 5/F, Citibank Tower, Bapindo Plaza, Jl. Jend. Sudirman Kav. 54-55, Jakarta 12190. Neither this Product nor any copy hereof may be distributed in Indonesia or to any Indonesian citizens wherever they are domiciled or to Indonesian residents except in compliance with applicable capital market laws and regulations. This Product is not an offer of securities in Indonesia. The securities referred to in this Product have not been registered with the Capital Market and Financial Institutions Supervisory Agency (BAPEPAM-LK) pursuant to relevant capital market laws and regulations, and may not be offered or sold within the territory of the Republic of Indonesia or to Indonesian citizens through a public offering or in circumstances which constitute an offer within the meaning of the Indonesian capital market laws and regulations. The Product is made available in **Israel** through Citibank NA, regulated by the Bank of Israel and the Israeli Securities Authority. Citibank, N.A., Platinum Building, 21 Ha'arba'ah St, Tel Aviv, Israel. The Product is made available in **Italy** by Citigroup Global Markets Limited, which is authorised by the PRA and regulated by the FCA and the PRA. Via dei Mercanti, 12, Milan, 20121, Italy. The Product is made available in **Japan** by Citigroup Global Markets Japan Inc. ("CGMJ"), which is regulated by Financial Services Agency, Securities and Exchange Surveillance Commission, Japan Securities Dealers Association, Tokyo Stock Exchange and Osaka Securities Exchange. Shin-Marunouchi Building, 1-5-1 Marunouchi, Chiyoda-ku, Tokyo 100-6520 Japan. If the Product was distributed by SMBC Nikko Securities Inc. it is being so distributed under license. In the event that an error is found in an CGMJ research report, a revised version will be posted on the Firm's Citi Velocity website. If you have questions regarding Citi Velocity, please call (81 3) 6270-3019 for help. The Product is made available in **Korea** by Citigroup Global Markets Korea Securities Ltd., which is regulated by the Financial Services Commission, the Financial Supervisory Service and the Korea Financial Investment Association (KOFIA). Citibank Building, 39 Da-dong, Jung-gu, Seoul 100-180, Korea. KOFIA makes available registration information of research analysts on its website. Please visit the following website if you wish to find KOFIA registration information on research analysts of Citigroup Global Markets Korea Securities Ltd. <http://dis.kofia.or.kr/fs/dis2/fundMgr/DISFundMgrAnalystPop.jsp?companyCd2=A03030&pageDiv=02>. The Product is made available in Korea by Citibank Korea Inc., which is regulated by the Financial Services Commission and the Financial Supervisory Service. Address is Citibank Building, 39 Da-dong, Jung-gu, Seoul 100-180, Korea. The Product is made available in **Malaysia** by Citigroup Global Markets Malaysia Sdn Bhd (Company No. 460819-D) ("CGMM") to its clients and CGMM takes responsibility for its contents. CGMM is regulated by the Securities Commission of Malaysia. Please contact CGMM at Level 43 Menara Citibank, 165 Jalan Ampang, 50450 Kuala Lumpur, Malaysia in respect of any matters arising from, or in connection with, the Product. The Product is made available in **Mexico** by Acciones y Valores Banamex, S.A. De C. V., Casa de Bolsa, Integrante del Grupo Financiero Banamex ("Accival") which is a wholly owned subsidiary of Citigroup Inc. and is regulated by Comision Nacional Bancaria y de Valores. Reforma 398, Col. Juarez, 06600 Mexico, D.F. In **New Zealand** the Product is made available to 'wholesale clients' only as defined by s5C(1) of the Financial Advisers Act 2008 ("FAA") through Citigroup Global Markets Australia Pty Ltd (ABN 64 003 114 832 and AFSL No. 240992), an overseas financial adviser as defined by

the FAA, participant of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. The Product is made available in **Pakistan** by Citibank N.A. Pakistan branch, which is regulated by the State Bank of Pakistan and Securities Exchange Commission, Pakistan. AWT Plaza, 1.1. Chundrigar Road, P.O. Box 4889, Karachi-74200. The Product is made available in the **Philippines** through Citicorp Financial Services and Insurance Brokerage Philippines, Inc., which is regulated by the Philippines Securities and Exchange Commission. 20th Floor Citibank Square Bldg. The Product is made available in the Philippines through Citibank NA Philippines branch, Citibank Tower, 8741 Paseo De Roxas, Makati City, Manila. Citibank NA Philippines NA is regulated by The Bangko Sentral ng Pilipinas. The Product is made available in **Poland** by Dom Maklerski Banku Handlowego SA an indirect subsidiary of Citigroup Inc., which is regulated by Komisja Nadzoru Finansowego. Dom Maklerski Banku Handlowego S.A. ul.Senatorska 16, 00-923 Warszawa. The Product is made available in the **Russian Federation** through ZAO Citibank, which is licensed to carry out banking activities in the Russian Federation in accordance with the general banking license issued by the Central Bank of the Russian Federation and brokerage activities in accordance with the license issued by the Federal Service for Financial Markets. Neither the Product nor any information contained in the Product shall be considered as advertising the securities mentioned in this report within the territory of the Russian Federation or outside the Russian Federation. The Product does not constitute an appraisal within the meaning of the Federal Law of the Russian Federation of 29 July 1998 No. 135-FZ (as amended) On Appraisal Activities in the Russian Federation. 8-10 Gasheka Street, 125047 Moscow. The Product is made available in **Singapore** through Citigroup Global Markets Singapore Pte. Ltd. ("CGMSPL"), a capital markets services license holder, and regulated by Monetary Authority of Singapore. Please contact CGMSPL at 8 Marina View, 21st Floor Asia Square Tower 1, Singapore 018960, in respect of any matters arising from, or in connection with, the analysis of this document. This report is intended for recipients who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). The Product is made available by The Citigroup Private Bank in Singapore through Citibank, N.A., Singapore Branch, a licensed bank in Singapore that is regulated by Monetary Authority of Singapore. Please contact your Private Banker in Citibank N.A., Singapore Branch if you have any queries on or any matters arising from or in connection with this document. This report is intended for recipients who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). This report is distributed in Singapore by Citibank Singapore Ltd ("CSL") to selected Citigold/Citigold Private Clients. CSL provides no independent research or analysis of the substance or in preparation of this report. Please contact your Citigold/Citigold Private Client Relationship Manager in CSL if you have any queries on or any matters arising from or in connection with this report. This report is intended for recipients who are accredited investors as defined under the Securities and Futures Act (Cap. 289). Citigroup Global Markets (Pty) Ltd. is incorporated in the **Republic of South Africa** (company registration number 2000/025866/07) and its registered office is at 145 West Street, Sandton, 2196, Saxonwold. Citigroup Global Markets (Pty) Ltd. is regulated by JSE Securities Exchange South Africa, South African Reserve Bank and the Financial Services Board. The investments and services contained herein are not available to private customers in South Africa. The Product is made available in the **Republic of China** through Citigroup Global Markets Taiwan Securities Company Ltd. ("CGMTS"), 14 and 15F, No. 1, Songzhi Road, Taipei 110, Taiwan and/or through Citibank Securities (Taiwan) Company Limited ("CSTL"), 14 and 15F, No. 1, Songzhi Road, Taipei 110, Taiwan, subject to the respective license scope of each entity and the applicable laws and regulations in the Republic of China. CGMTS and CSTL are both regulated by the Securities and Futures Bureau of the Financial Supervisory Commission of Taiwan, the Republic of China. No portion of the Product may be reproduced or quoted in the Republic of China by the press or any third parties [without the written authorization of CGMTS and CSTL]. If the Product covers securities which are not allowed to be offered or traded in the Republic of China, neither the Product nor any information contained in the Product shall be considered as advertising the securities or making recommendation of the securities in the Republic of China. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security or financial products. Any decision to purchase securities or financial products mentioned in the Product must take into account existing public information on such security or the financial products or any registered prospectus. The Product is made available in **Thailand** through Citicorp Securities (Thailand) Ltd., which is regulated by the Securities and Exchange Commission of Thailand. 399 Interchange 21 Building, 18th Floor, Sukhumvit Road, Klongtoey Nua, Wattana, Bangkok 10110, Thailand. The Product is made available in **Turkey** through Citibank AS which is regulated by Capital Markets Board. Tekfen Tower, Eski Buyukdere Caddesi # 209 Kat 2B, 23294 Levent, Istanbul, Turkey. In the **U.A.E**, these materials (the "Materials") are communicated by Citigroup Global Markets Limited, DIFC branch ("CGML"), an entity registered in the Dubai International Financial Center ("DIFC") and licensed and regulated by the Dubai Financial Services Authority ("DFSA") to Professional Clients and Market Counterparties only and should not be relied upon or distributed to Retail Clients. A distribution of the different Citi Research ratings distribution, in percentage terms for Investments in each sector covered is made available on request. Financial products and/or services to which the Materials relate will only be made available to Professional Clients and Market Counterparties. The Product is made available in **United Kingdom** by Citigroup Global Markets Limited, which is authorised by the Prudential Regulation Authority ("PRA") and regulated by the Financial Conduct Authority ("FCA") and the PRA. This material may relate to investments or services of a person outside of the UK or to other matters which are not authorised by the PRA nor regulated by the FCA and the PRA and further details as to where this may be the case are available upon request in respect of this material. Citigroup Centre, Canada Square, Canary Wharf, London, E14 5LB. The Product is made available in **United States** by Citigroup Global Markets Inc, which is a member of FINRA and registered with the US Securities and Exchange Commission. 388 Greenwich Street, New York, NY 10013. Unless specified to the contrary, within EU Member States, the Product is made available by Citigroup Global Markets Limited, which is authorised by the PRA and regulated by the FCA and the PRA.

Pursuant to Comissão de Valores Mobiliários Rule 483, Citi is required to disclose whether a Citi related company or business has a commercial relationship with the subject company. Considering that Citi operates multiple businesses in more than 100 countries around the world, it is likely that Citi has a commercial relationship with the subject company.

Many European regulators require that a firm must establish, implement and make available a policy for managing conflicts of interest arising as a result of publication or distribution of investment research. The policy applicable to Citi Research's Products can be found at https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures.

Compensation of equity research analysts is determined by equity research management and Citigroup's senior management and is not linked to specific transactions or recommendations.

The Product is not to be construed as providing investment services in any jurisdiction where the provision of such services would not be permitted.

Subject to the nature and contents of the Product, the investments described therein are subject to fluctuations in price and/or value and investors may get back less than originally invested. Certain high-volatility investments can be subject to sudden and large falls in value that could equal or exceed the amount invested. Certain investments contained in the Product may have tax implications for private customers whereby levels and basis of taxation may be subject to change. If in doubt, investors should seek advice from a tax adviser. The Product does not purport to identify the nature of the specific market or other risks associated with a particular transaction. Advice in the Product is general and should not be construed as personal advice given it has been prepared

without taking account of the objectives, financial situation or needs of any particular investor. Accordingly, investors should, before acting on the advice, consider the appropriateness of the advice, having regard to their objectives, financial situation and needs. Prior to acquiring any financial product, it is the client's responsibility to obtain the relevant offer document for the product and consider it before making a decision as to whether to purchase the product. Citi Research generally disseminates its research to the Firm's global institutional and retail clients via both proprietary (e.g., Citi Velocity and Citi Personal Wealth Management) and non-proprietary electronic distribution platforms. Certain research may be disseminated only via Citi's proprietary distribution platforms; however such research will not contain changes to earnings forecasts, target price, investment or risk rating or investment thesis or be otherwise inconsistent with the author's previously published research. Certain research is made available only to institutional investors to satisfy regulatory requirements. Individual Citi Research analysts may also opt to circulate published research to one or more clients by email; such email distribution is discretionary and is done only after the research has been disseminated.

The level and types of services provided by Citi Research analysts to clients may vary depending on various factors such as the client's individual preferences as to the frequency and manner of receiving communications from analysts, the client's risk profile and investment focus and perspective (e.g. market-wide, sector specific, long term, short-term etc.), the size and scope of the overall client relationship with Citi and legal and regulatory constraints.

Citi Research product may source data from dataCentral. dataCentral is a Citi Research proprietary database, which includes Citi estimates, data from company reports and feeds from Thomson Reuters.

© 2014 Citigroup Global Markets Inc. Citi Research is a division of Citigroup Global Markets Inc. Citi and Citi with Arc Design are trademarks and service marks of Citigroup Inc. and its affiliates and are used and registered throughout the world. All rights reserved. Any unauthorized use, duplication, redistribution or disclosure of this report (the "Product"), including, but not limited to, redistribution of the Product by electronic mail, posting of the Product on a website or page, and/or providing to a third party a link to the Product, is prohibited by law and will result in prosecution. The information contained in the Product is intended solely for the recipient and may not be further distributed by the recipient to any third party. Where included in this report, MSCI sourced information is the exclusive property of Morgan Stanley Capital International Inc. (MSCI). Without prior written permission of MSCI, this information and any other MSCI intellectual property may not be reproduced, redisseminated or used to create any financial products, including any indices. This information is provided on an "as is" basis. The user assumes the entire risk of any use made of this information. MSCI, its affiliates and any third party involved in, or related to, computing or compiling the information hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any third party involved in, or related to, computing or compiling the information have any liability for any damages of any kind. MSCI, Morgan Stanley Capital International and the MSCI indexes are services marks of MSCI and its affiliates. The Firm accepts no liability whatsoever for the actions of third parties. The Product may provide the addresses of, or contain hyperlinks to, websites. Except to the extent to which the Product refers to website material of the Firm, the Firm has not reviewed the linked site. Equally, except to the extent to which the Product refers to website material of the Firm, the Firm takes no responsibility for, and makes no representations or warranties whatsoever as to, the data and information contained therein. Such address or hyperlink (including addresses or hyperlinks to website material of the Firm) is provided solely for your convenience and information and the content of the linked site does not in anyway form part of this document. Accessing such website or following such link through the Product or the website of the Firm shall be at your own risk and the Firm shall have no liability arising out of, or in connection with, any such referenced website.

ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST
